INTEGRATED EDUCATION PROGRAM (IEP)

TEACHER FOLLOW-UP 1 REPORT

for:

Cohorts 1, 2 and 3

Commissioned by
RTI International

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by

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ACRONYMNS

AIDS	Acquired Immunodeficiency Syndrome
AS	Assessment Standard/s
C2005	Curriculum 2005
Btw	Between
DDSP	District Development Support Programme
DO	District Official
DoE	Department of Education
EC	Eastern Cape [province]
EQ	Educator Questionnaires
FET	Further Education and Training
FP	Foundation Phase
Gr	Grade
HIV	Human Immunodeficiency Virus
IEP	Integrated Education Programme
IP	Intermediate Phase
JET	JET Education Services
KZN	KwaZulu-Natal [province]
LA	Learning Area
LP	Limpopo [province]
LO	Learning Outcome
MT	Master teacher
N	Number
NC	Northern Cape [province]
NCS	National Curriculum Statement
NGO	Non-government Organisation
OBE	Outcomes Based Education
PED	Provincial Education Department
NCS	Revised National Curriculum Statement
RTI	Research Triangle Institute
SA	South Africa
SGB	School Governing Bodies
SMT	School Management Teams
USAID	United States Agency for International Development

1. INTRODUCTION AND BACKGROUND

As part of the internal monitoring of activities of the Integrated Education Program by RTI-IEP, one of the project's tasks is measuring teacher content knowledge and teacher practices in the classrooms. As indicated in the baseline report, the main objectives of the program are:

- Enhanced capacity of teachers (targeted to the teaching of literacy, numeracy, mathematics and science);
- Effective implementation of the National Curriculum Statement (NCS) with a focus on teaching of literacy, numeracy, mathematics and science curriculum;
- Improved educational management and enhanced school governance;
- Integration of HIV and AIDS issues into curricula and teaching;
- Increased number of mathematics and science teachers trained through pre-service programmes; and
- Support to the national and provincial Departments of Education.

IEP is tasked with the responsibility of achieving these objectives, which are further divided into the following nine results:

Result 1: Increased subject matter knowledge for teachers in the targeted subject areas;
Result 2: Improved ability of teachers to develop and apply continuous assessment strategies and techniques;
Result 3: Increased number of teachers being trained (in-service) and new teachers trained (pre-service);
Result 4: Increased number of teachers that are teaching literacy, numeracy, mathematics and science in a manner consistent with the NCS;
Result 5: Improved teachers' ability to develop and use classroom materials that support Curriculum 2005 learner-centred instruction;
Result 6: Improved instructional leadership skills for School Management Teams (SMTs);
Result 7: Improved management and administrative capacity of schools to collaborate with School Governing Bodies (SGBs) and communities to develop and effectively implement School Development Plans to improve school functionality;
Result 8: Improved district capacity to develop and effectively implement a strategic plan for school support; and
Result 9: Support to the national DoE.

In late 2004, IEP, as part of this monitoring process, designed and set benchmarks, which are intended to be achieved over the life of the project. The benchmark targets were subsequently revised in December 2005.[1] RTI-IEP and subcontractors will be judged on whether the benchmark targets are attained.

To measure these targets under Results 1, 2, 4, and 5, baseline instruments were developed and administered by IEP and the IEP subcontractors to master teachers attending residential workshops. The same instruments were administered again to master teachers who attended the September 2005 IEP residential workshop as part of the first Follow-up Study (or Follow-up Study 1).

[1] Generally, the benchmark targets serve to set minimum improvement targets for IEP in years 2, 3 and 4 against all IEP results.

2. PURPOSE OF THIS REPORT

The Follow-up Study was conducted in September 2005. As with the baseline, RTI-IEP, in collaboration with the IEP subcontractors, were responsible for the data collection, marking and capturing.

JET Education Services (JET) was commissioned to assist RTI-IEP with the data analysis and with compiling this report.

The purpose of this report is to compare the scores of this Follow-up Study with those obtained in the baseline to determine whether or not the targets set for Results 1, 2, 4 and 5 in year 2 have been realized.

3. INSTRUMENTS

As previously indicated, the IEP baseline instruments were used in the Follow-up Study 1. Two types of tests were administered:

3.1 Content/subject matter knowledge tests

The content/subject matter knowledge instruments measure Result 1 in respect of learning areas (LAs). The tests consisted of:

- literacy test (Foundation Phase),
- numeracy test (Foundation Phase),
- mathematics test (Intermediate Phase),
- science and technology test (Intermediate Phase),
- mathematics test (Further Education and Training), and
- science (Further Education and Training).

These content tests were developed by the IEP subcontractors who are responsible for content/subject matter knowledge in the targeted learning areas.

3.2 Educator Questionnaires

The educator questionnaire, which was developed by RTI-IEP programme managers, covers Results 2, 4 and 5. These IEP Results address teachers' ability to develop and apply continuous assessment strategies and techniques, their ability to teach in a manner consistent with the NCS, as well as develop and use classroom materials that support learner-centered teaching. The IEP Questionnaire was designed for all master teachers (MT).

As a means to measure progress and whether targets were being achieved by MTs, the learning area subcontractors who developed the materials recommended a minimum requirement that amounts to pass/no pass benchmarks. The table below indicates the agreed minimum standard or marks required by a MT to pass the test in each of the learning areas/subjects tested. Those MTs who fell below the pass mark, are treated as having obtained a 'No Pass' result, where minimum standards of expected performance are not met:

Table 1: Pass marks for each of the administered tests

Baseline Instrument	Pass mark
1. Educator Questionnaire	86%
2. Language/Literacy (Foundation Phase)	60%
3. Numeracy (Foundation Phase)	50%
4. Mathematics (Intermediate Phase)	50%
5. Science and Technology (Intermediate Phase)	50%
6. Mathematics (FET Phase)	50%
7. Science (FET Phase)	50%

4. DATA COLLECTION

These tests and questionnaires were administered and monitored by provincial IEP subcontractors to all the master teachers (MTs) who attended residential training in September 2005 in KwaZulu-Natal, Limpopo and Northern Cape. Eastern Cape did not participate in the Follow-up Study due to an on-going strike action carried out by the South African Democratic Teachers Union (SADTU), which interrupted IEP training in Eastern Cape through to March 2006. Additionally, the number of teachers in Limpopo who participated in the Follow-up Study 1 was significantly fewer than in the baseline. This was because the Limpopo Education Department decided to disengage IEP from working with teachers and schools in IEP cohorts 1-3 due to a dispute over the payment of incentives in August 2005. Most of the project schools in Limpopo were therefore withdrawn from the IEP. The only district which has continued with the project is the Bohlabela district. This meant that only MTs from the Bohlabela district and who attended the residential workshops were tested in the Follow-up Study 1.

Data collection took take place on the following dates:

Table 2: Testing dates and venues

Province	Date	Venue
KZN	25 September 2006	Eshowe High School
LP	25 September 2006	Ben Vorster High School
NC	26 September 2006	Diamandveld High School

The methodology used was primarily convenient in nature and as a result only MTs who were present at the residential training on the first day completed the tests and questionnaires.

All content/subject knowledge tests were marked by the learning area subcontractors, while the educator questionnaires were marked by the RTI-IEP program managers. The tests were marked and marks with the prescribed pass/no pass benchmarks were submitted to the respective coordinating subcontractors for data capturing.

Results were captured by the RTI-IEP head office on a new and improved system, which was developed specifically for this and subsequent IEP studies of this nature.

5. DATA ANALYSIS

This report focuses on the results for master teachers on the educator questionnaire and the respective content/subject matter knowledge tests, specifically in relation to comparing the obtained pass rates and the average or mean scores of this Follow-up Study with those obtained in the baseline.

The next section will now look at the findings of the Follow-up Study 1 for each instrument that was administered.

6. FINDINGS

6.1 Educator Questionnaire (EQ)

6.1.1 Description of the sample

Overall 255 MTs completed the questionnaire in the Follow-up Study 1. Tables 3 and 4 break this down by province, teaching phase and gender respectively.

Table 3: Description of sample of MTs who completed the EQ per province in both the Baseline Study and the Follow-up Study 1

Province	Baseline		Follow-up 1	
	Frequency	Percent	Frequency	Percent
EC	172	22.8	0	0
KZ	176	23.4	144	56.5
LP	257	34.1	43	16.9
NC	148	19.7	68	26.7
TOTAL	**753**	**100**	**255**	**100**

Table 4: Description of sample of MTs who completed the EQ per teaching phase in both the Baseline Study and theFollow-up Study 1

Phase	Baseline		Follow-up 1	
	Frequency	Percent	Frequency	Percent
Foundation	286	38.0	101	39.6
Intermediate	381	50.6	130	51.0
FET	77	10.2	18	7.1
No Data[2]	9	1.2	6	2.4
TOTAL	**753**	**100.0**	**255**	**100**

Any teacher who reportedly taught any grades ranging between Grade R and 3, were considered a Foundation Phase Teacher. Similarly, any teacher teaching Grades 4 to 7 were classified Intermediated Phase teachers. Lastly, any teacher who taught high school grades (i.e., Grades 8 to 12) was categorized as an FET Phase teacher.

The sample was made up primarily of female teachers (67%). Only a third of the total number of teachers who answered the EQ were male. Four teachers did not specify their gender. This made up almost 2% of the total number of teachers who answered the EQ. This is tabulated in table 5 below.

[2] No phase information was available for 6 teachers in the database provided to JET.

Table 5: Description of sample of MTs who completed the EQ per gender in the Follow-up Study 1

Phase	Frequency	Percent
Female	171	67.1
Male	80	31.4
No Data	4	1.6
TOTAL	**255**	**100**

6.1.2 Overall performance and pass rates

The overall results on the EQ show a performance rate[3] of 61% (see table 6). This is a 2.2 percentage point increase from the baseline. Also positive is the fact that the standard deviation is slightly less. This suggests that there is less variation in the scores.

Table 6: Overall performance rate of MTs on the EQ

	Number of MTs tested	Minimum	Maximum	Mean	Std. Deviation
Baseline	753	0	100	58.74	29.82
Follow-up 1	255	0	100	60.90	27.68
% point diff				+2.16	

As shown by Table 7, 16% of MTs achieved 100% on the questionnaire. This is a 1.6 percentage point increase from the baseline. In the baseline, almost 6% of MT who wrote the EQ obtained a score of zero, while in the Follow-up Study 1 only 2.7% scored zero. This increase in the number of MT who achieved 100% and this decrease in the number of MTs who scored zero is heartening. It shows that MTs are seemingly reaping the fruits of the intervention.

Table 7: Distribution of percentage scores achieved by MTs on the EQ

% Scores	Baseline	Follow-up	Difference
0	5.7%	2.7%	-3.0%
14	9.3%	5.9%	-3.4%
29	9.4%	13.7%	4.3%
43	12.7%	11.4%	-1.3%
57	13.8%	18.8%	+5.0%
71	18.5%	16.9%	-1.6%
86	16.5%	14.9%	-1.6%
100	14.1%	15.7%	+1.6%
Total	**100.0%**	**100.0%**	

Tables 8, 9 and 10 break down the performance rates for respective provinces, teaching phases and gender groupings.

[3] This refers to the overall mean or average score obtained by the sample

Table 8: Performance rate of MTs on the EQ disaggregated by province

Province	Testing Phase	Mean	N	Std. Deviation
KZ	Baseline	57.86	176	29.84
	Follow-up 1	57.04	144	27.99
	% point diff	-0.82		
LP	Baseline	56.11	257	29.51
	Follow-up 1	59.23	43	31.23
	% point diff	+3.12		
NC	Baseline	48.83	148	29.79
	Follow-up 1	69.80	68	22.76
	% point diff	+20.97		

Table 9: Performance rate of MTs on the EQ disaggregated by teaching phase

Phase	Testing Phase	Mean	N	Std. Deviation
Foundation	Baseline	63.70	286	28.32
	Follow-up 1	66.34	101	26.69
	% point diff	+2.64		
Intermediate	Baseline	59.27	380	29.42
	Follow-up 1	57.91	130	27.97
	Diff	-1.36		
FET	Baseline	32.51	47	24.35
	Follow-up 1	53.17	18	22.88
	% point diff	+20.66		
No Data	Baseline	-	-	-
	Follow-up 1	57.14	6	40.41
	% point diff	-	-	-

Table 10: Performance rate of MTs on the EQ disaggregated by gender in the Follow-up Study 1

Phase	Mean	N	Std. Deviation
Female	63.07	171	27.881
Male	57.32	80	26.361
No Data	39.29	4	35.714

In contrast to the baseline results where Northern Cape scored the worst with an overall performance rate of 49% being achieved, Northern Cape is now the strongest performing province. This province also showed the biggest gain of almost 21%. This improvement is largely attributed to FET teachers who, as shown in table 8, showed a similar but marked improvement in the Follow-up Study 1. Limpopo MTs also showed an improvement but the degree of improvement is only 3 percentage points (3%) more than the baseline. KwaZulu-Natal was the only province where a decline was experienced. However, this decline was very slight, i.e., less than 1% drop was experienced.

At the phase level, there was an improvement in all the phases, except in the Intermediate Phase. As with the baseline, Foundation Phase MTs achieved the highest performance rate (66%) in the Follow-up Study 1, which was 2% more than in the baseline. Additionally, the baseline showed that the FET phase was the phase

whose mean was the lowest. In the Follow-up Study 1, this phase improved to 53%, which is an impressive 20.6% improvement. Intermediate Phase teachers scored 58% in the Follow-up Study 1 but this was 1.4% less than in the baseline. It is not clear why this drop was observed, however one hypothesis is that the missing data on teaching phase (n=6) may be Intermediate Phase teachers and if this were to be included as Intermediate Phase data, the overall mean for this level would improve.

Females outperformed male teachers by almost 6%. The overall mean score by females was 63% as opposed to 57% for males. In terms of the change in performance rates between males and females since the baseline, unfortunately no comparative data was available.

In terms of pass rate, of the 255 teachers who completed the EQ in the Follow-up Study 1, only 31% attained a score of 86% or more (see table 11). This is not much different from the baseline result. There was an improvement of 0.2% but this is negligible. There was a proportional drop of the same amount (0.2%) of total teachers who did not pass the EQ.

Table 11: Pass rate of MTs on the EQ

Testing Phase	Percentage of teachers not passing	Percentage of teachers passing
Baseline	69.6	30.4
Follow-up 1	69.4	30.6
% point diff	-0.2	+0.2

This means that only a third of the MTs who were assessed on the EQ have the proper documentation in place, do continuous assessment of their learners, use student-centred teaching methods, and have the ability to develop and use classroom materials that support C2005.

Tables 12, 13 and 14 disaggregate the pass rate per province, teaching phase and gender.

Table 12: Pass rate of MTs on the EQ as disaggregated by province

Province	Testing Phase	Percent
KZN	Baseline	29.0
	Follow-up 1	25.0
	% point diff	-4.0
LP	Baseline	25.3
	Follow-up 1	34.1
	% point diff	+8.8
NC	Baseline	20.9
	Follow-up 1	40.0
	% point diff	+19.1

While Limpopo showed an increase of almost 9% in the total number of MTs who achieved 86% or more on the EQ, many more teachers in the Northern Cape reached this target (19%). KwaZulu-Natal was the only province which showed a drop in pass rate since the baseline.

Table 13: Pass rate of MTs on the EQ as disaggregated by teaching phase

Phase	Testing Phase	Percent
Foundation	Baseline	35.0
	Follow-up 1	40.6
	% point diff	+5.6
Intermediate	Baseline	30.2
	Follow-up 1	24.6
	% point diff	-5.6
FET	Baseline	4.3
	Follow-up 1	16.7
	% point diff	+12.4
No data	Baseline	77.8
	Follow-up 1	33.3
	% point diff	-44.5

The Follow-up Study 1 shows a 12.4% increase in the number of teachers at the FET phase who passed. At the Foundation Phase, 5.6% more teachers achieved pass marks of 86% or more in the Follow-up Study 1 while 5.6% fewer teachers in the Intermediate Phase achieved pass marks in the Follow-up Study 1.

Table 14: Pass rate of MTs on the EQ as disaggregated by gender in the Follow-up Study 1

Gender	Frequency	Percent
Female	58	33.9
Male	19	23.8
No Data	1	25.0

Table 14 shows that females had higher pass rates than males. This supports the findings of table 9 above.

Generally, tables 12 to 14 support the overall finding that a large percentage of MTs are still struggling to implement the appropriate curriculum management procedures and teaching practices as dictated by C2005. Nevertheless, the results indicate that there has been an improvement in pass rates (and performance rates) since the baseline, especially by Foundation and FET teachers in Limpopo and Northern Cape. This is explained in more detail in the section 6.1.3, which now follows.

6.1.3 Performance and pass rates per IEP Result

The Educator Questionnaire relates to IEP Results 2, 4 and 5. Each of the questions was linked to these IEP Results. Thus, questions 1 and 2 relate to Result 2, questions 3 and 4 to Result 4 and questions 5, 6, 7 to Result 5. The performance rate and the pass rates will now be examined for each of the corresponding IEP Results.

a) ***Result 2****: Improved ability of teachers to develop and apply continuous assessment strategies and techniques.*

The aim of Result 2 is to assess the percentage of master teachers that have documentation in place that reflects the continuous assessment of students' performance in the targeted learning areas.

The baseline for Result 2 indicated that 36% of teachers across the four provinces have documentation in place that reflects their continuous assessment of students' performance in the targeted learning areas. The Follow-up Study 1 revealed similar findings – put differently, a stagnation of results was evidenced for Result 2.

Table 15: Distribution of percentage scores for the EQ-Result 2

% scores	Baseline		Follow-up 1	
	Number of MTs	Percent	Number of MTs	Percent
.00	175	24.1	57	22.4
50.00	290	40.0	107	42.0
100.00	260	35.9	91	35.7
Total	**725**	**100.0**	**255**	**100.0**

The performance rate for Result 2 was 57%, which is a 0.8 percentage point increase from the baseline. See table 16 below.

Table 16: Performance rate for the EQ-Result 2

	N	Minimum	Maximum	Mean	Std. Deviation
Baseline	725	.00	100.00	55.9	38.31006
Follow-up 1	255	.00	100.00	56.7	37.57757
% point diff				+0.8	

However, the target which was set for year 2 for this Result was that educators are expected to improve by 8% over the baseline. This meant that the Follow-up Study 1 should have expected an improvement in mean score (or performance score) of 4.5 percentage points. Therefore the resulting mean in the Follow-up Study 1 was expected to be 60.4%. However, the overall performance rate in the Follow-up Study 1 of 57% is only 0.8% percentage points better than the baseline. This means that the **8% target that was expected for this Result in year 2 has not been realised**. They fell short by 3.7 percentage points. This translates into **1.43 percentage points over the baseline.**

In order to better understand where the problems lay, the EQ results will be disaggregated by learning area. Table 17 below does this for Result 2.

Table 17: Performance rate for the EQ-Result 2 by learning area

Learning Area	Testing Phase	Minimum	Maximum	Mean	Std. Deviation
First Additional Language	Baseline	0.00	100.00	62.73	37.308
	Follow-up 1	00.0	100.00	63.04	34.050
	% point diff			+0.31	
Numeracy	Baseline	0.00	100.00	53.20	37.429
	Follow-up 1	0.00	100.00	52.54	39.853
	% point diff			-0.66	
Mathematics	Baseline	0.00	100.00	56.10	39.447
	Follow-up 1	0.00	100.00	58.33	35.603
	% point diff			+2.23[4]	

[4] This figure includes FET performance scores.

Science	Baseline	0.00	100.00	54.97	38.044
	Follow-up 1	0.00	100.00	52.86	39.824
	% point diff			-2.11[5]	

Note: Total number of teachers in the Follow-up Study 1 does not equal 255 as there was no data on learning area in 8 cases.

Table 17 shows that MTs who are teaching mathematics improved by 2.2 percentage points in their overall mean score for Result 2. This is an improvement of 4% over the baseline and was the LA where the most improvement was noted. MTs teaching first additional language also improved since the baseline, but this was only 0.3 percentage points better. However, this is the LA where the highest means are noted both in the baseline and in the Follow-up Study 1. There was a decline in mean scores for Result 2 by MTs teaching numeracy and science, especially in science.

b) ***Result 4****: Increased number of teachers that are teaching literacy, numeracy, mathematics and science in a manner consistent with the NCS.*

The aim of this part of the instrument was to assess the percentage of teachers that are using student-centered teaching to implement the NCS in their classrooms. The baseline for Result 4 showed that 42% of the teachers in the participating schools across the four provinces are relying on student-centered teaching practices to implement NCS and OBE principles in their classrooms. The Follow-up Study 1 results show that 5.4% less teachers have teaching practices in literacy, numeracy, mathematics and science in a manner which is consistent with the NCS. Only 37% teachers are implementing this well.

Table 18: Distribution of percentage scores for the EQ-Result 4

% scores	Baseline		Follow-up 1	
	Number of MTs	Percent	Number of MTs	Percent
.00	183	25.2	78	30.6
50.00	238	32.8	84	32.9
100.00	304	41.9	93	36.5
Total	**725**	**100.0**	**255**	**100.0**

This is supported by the performance rate for this Result, which was 5.4% lower than in the baseline where the overall performance rate was 58%. See table 19 below.

Table 19: Performance rate for the EQ-Result 4

	N	Minimum	Maximum	Mean	Std. Deviation
Baseline	725	.00	100.00	58.34	40.148
Follow-up 1	255	.00	100.00	52.94	40.919
% point diff				-5.4	

Again this is bad news in that the target of achieving a **20% improvement over baseline has not been realised** – instead of achieving an improvement of 11.6 percentage points, there was regression by just over 5%. This translates into **9.25 percentage points under the baseline**. It is not clear why this decrease was experienced but it is likely that the exclusion of Eastern Cape teachers from the

[5] See footnote 4.

Follow-up Study 1, which performed fairly well overall in the baseline, may have contributed to the general decrease in these IEP Results.

Table 20 below disaggregates the performance rate for Result 4 by learning area.

Table 20: Performance rate for the EQ-Result 4 by learning area

Learning Area	Testing Phase	Minimum	Maximum	Mean	Std. Deviation
First Additional Language	Baseline	0.00	100.00	60.91	39.072
	Follow-up 1	0.00	100.00	63.04	41.412
	% point diff			+2.13	
Numeracy	Baseline	0.00	100.00	60.40	40.806
	Follow-up 1	0.00	100.00	48.31	41.488
	% point diff			-12.09	
Mathematics	Baseline	0.00	100.00	57.85	39.508
	Follow-up 1	0.00	100.00	51.39	41.936
	% point diff			-6.46[6]	
Science	Baseline	0.00	100.00	59.67	40.179
	Follow-up 1	0.00	100.00	52.86	37.960
	% point diff			-6.81[7]	

Table 20 shows that, with the exception of first additional language MTs, there was a drop in mean scores across the board for Result 4. This suggests that MTs are having difficulty in using student-centered teaching to implement the NCS in their classrooms, especially in numeracy.

c) ***Result 5****: Improved teachers' ability to develop and use classroom materials that support Curriculum 2005 learner-centred instruction.*

Result 5 focuses on improving MTs' ability to develop and use classroom materials that support C2005 learner-centred instruction. The educator questionnaire was used to assess the percentage of teachers in participating schools that are developing and using teacher-created materials in their classrooms. The baseline for Result 5 shows that 37% of the tested MTs in the participating schools across the four provinces are aware what teacher-created materials are and should be used in their classrooms. Unlike the previous two Results, Result 5 was the only one which showed an overall increase since the baseline. There was a 10% improvement in percentage points since the baseline for this Result.

Table 21: Distribution of percentage scores for the EQ-Result 5

	Baseline		Follow-up 1	
% scores	Number of MTs	Percent	Number of MTs	Percent
.00	128	17.0	30	11.8
33.33	144	19.1	42	16.5
66.67	173	23.0	63	24.7
100.00	280	37.2	120	47.1
Total	**725**	**96.3**	**255**	**100.0**

[6] See footnote 4.
[7] See footnote 4.

The performance rate for Result 5 was 69% in the Follow-up Study 1. See table 22 below.

Table 22: Performance rate for the EQ-Result 5

	N	Minimum	Maximum	Mean	Std. Deviation
Baseline	725	.00	100.00	61.15	37.496
Follow-up 1	255	.00	100.00	69.02	35.043
% point diff				+7.9	

The baseline **targets** stated that educators are expected **to improve by 8% during year 2**. This would mean an improvement of 4.9 percentage points. The overall performance rate score of 69% surpasses this target by 3 percentage points. This is a **12.7% improvement over the baseline**.

The baseline stated that during the first round of cluster workshops for MTs, the workshops revealed that teachers were not developing teaching and learning materials with ease and teachers were clearly not accustomed to preparing their own learning materials. As a result, the IEP planned to provide continued added support for teachers in this area to ensure that this takes place. This added support is probably what contributed to the overall improvement of Result 5.

Table 23 below disaggregates the performance rate for Result 5 by learning area.

Table 23: Performance rate for the EQ-Result 5 by learning area

Learning Area	Testing Phase	Minimum	Maximum	Mean	Std. Deviation
First Additional Language	Baseline	0.00	100.00	71.72	33.253
	Follow-up 1	0.00	100.00	84.78	29.570
	% point diff			+13.06	
Numeracy	Baseline	0.00	100.00	65.33	37.722
	Follow-up 1	0.00	100.00	72.32	32.254
	% point diff			+6.99	
Mathematics	Baseline	0.00	100.00	57.95	38.425
	Follow-up 1	0.00	100.00	64.81	35.774
	% point diff			+6.86[8]	
Science	Baseline	0.00	100.00	60.04	35.385
	Follow-up 1	0.00	100.00	60.00	37.040
	% point diff			-0.04[9]	

With the exception of science MTs, there was a notable improvement in mean scores in the Follow-up Study 1 across the different targeted LAs. The biggest gain was made by MTs teaching first additional language where the resulting mean in the Follow-up Study 1 was 85%, which was 13 percentage points more than the baseline. This is an 18% improvement over the baseline.

[8] See footnote 4.
[9] See footnote 4.

6.1.4 Concluding remarks

The overall performance rates shows a 2.2 percentage point increase from the baseline and in terms of pass rates, that 16% more teachers were scoring 100% on the EQ while the number of MTs who scored zero had halved. This positive change was experienced by MTs in the Northern Cape and Limpopo but not in KwaZulu-Natal where results had declined by almost 1%. At the phase level, improvements were noted most strongly at the FET level and to some extent in the Foundation Phase. Intermediate Phase showed a decline of just over 1%. Females outperformed the males both in relation to performance rates and pass rates on the EQ.

These results are encouraging and seem, at first glance, to suggest that the IEP intervention is having a positive impact on MTs and their practices in the classroom. However, when the performance and pass rates are calculated for Results 2, 4 and 5, which were all assessed on the EQ, a slightly different picture emerges:

- There appears to be almost no change since the baseline for Result 2, which means that the target of 8% improvement was not met.
- Result 4 showed a drop of 5.4%. This is significant because IEP had a target of 20% improvement over the baseline for this IEP Result. The fact that the performance rates declined since the baseline is therefore worrying.
- The only IEP Result which showed an improvement since the baseline was Result 5. More so, the improvement in performance rate was higher than the target of 8% set for this Result in year 2. It is likely the sizeable improvement in this Result is what contributed to the overall improvement on the EQ.

It is not clear why these trends emerged, however, two possible factors are hypothesised as having contributed to this situation. Firstly, there were fewer numbers in all provinces: Most Limpopo schools were dropped from the IEP and therefore only MTs from the Bohlabela district and who attended the residential workshop wrote the tests and Eastern Cape did not participate at all in the Follow-up Study. Eastern Cape was one of the strongest provinces in the baseline. Perhaps their exclusion in the Follow-up Study 1 contributed to some extent. Secondly, it may be that IEP focussed most of its support activities on Result 5 and less on Result 2 and 4.

6.2 TEACHER CONTENT TESTS

6.2.1 FIRST ADDITIONAL LANGUAGE (ENGLISH)

6.2.1.1 Description of the sample

Overall 46 Foundation Phase MTs completed the first additional language content test in the Follow-up Study 1. Tables 24 and 25 break this down by province and gender respectively.

Table 24: Description of sample of MTs who completed the first additional language test per province in the Follow-up Study 1

Province	Baseline		Follow-up 1	
	Frequency	Percent	Frequency	Percent
EC	72	39.8	0	0
KZ	33	18.2	25	54.3
LP	53	29.3	8	17.4
NC	23	12.7	13	28.3
TOTAL	**181**	**100.0**	**46**	**100.0**

Table 25: Description of sample of MTs who completed the first additional language test per gender in the Follow-up Study 1

Gender	Frequency	Percent
Female	46	100
Male	0	0.0
TOTAL	**255**	**100**

The sample of MTs who were tested on the first additional language test were all female.

6.2.1.2 Overall performance and pass rates

The first additional language test relates to Result 1. The aim of Result 1 is to obtain increased subject matter knowledge for master teachers in the targeted learning areas (in this case, literacy).

The Follow-up Study 1 result for MTs on this test shows a performance rate of 75.6% across the four provinces. This is a 5.7 percentage point increase from the baseline (see table 26). Put differently, the Foundation Phase MTs who were tested on the language test in the Follow-up Study 1 showed an **8.2% improvement over the baseline**. According to the IEP target document, teachers were **expected to improve by 5% during year 2**. This **target has therefore been met**, in fact, the mean achieved by MTs in the Follow-up Study 1 (75.6%) was 3.2% or 2.2 percentage points more than what was required.

Table 26: Overall performance rate of MTs on the first additional language test

	Number of MTs tested	Minimum	Maximum	Mean	Std. Deviation
Baseline	181	26	92	69.90	11.090
Follow-up 1	46	58	94	75.63	8.878
% point diff				+5.73	

Also noteworthy is the fact that the minimum score obtained in the Follow-up Study 1 is 32 percentage points more than the baseline. The maximum score also increased resulting in a maximum score of 94%.

Table 27 breaks down the performance rates for respective provinces.

Table 27: Performance rate of MTs on the first additional language test disaggregated by province

Province	Testing Phase	Mean	N	Std. Deviation
KZ	Baseline	64.00	33	13.852
	Follow-up 1	75.44	25	7.8
	% point diff	+11.44		
LP	Baseline	69.17	53	11.225
	Follow-up 1	75.25	8	7.996
	% point diff	+6.08		
NC	Baseline	70.78	23	9.332
	Follow-up 1	76.23	13	11.663
	% point diff	+5.45		

Provincially, all provinces seem to be performing at around the 75% mark in the Follow-up Study 1: Northern Cape performed the best with an overall performance score of 76%. KZN and Limpopo followed closely, reaching a mean of just over 75%.

In comparison to baseline results, all provinces showed an increase, with the biggest improvement being shown by MTs in KwaZulu-Natal. This is noteworthy because KZN had the lowest score in the baseline.

In terms of whether provinces met the 5% target, KwaZulu-Natal improved by 17.8% over the baseline, while Limpopo improved by 8.8% and Northern Cape improved by 7.7%. This means that all provinces have reached this target and in fact gone beyond this target.

In terms of pass rate, of the 46 Foundation Phase MTs, only 1 achieved a score below the passing mark 60% (see table 28). In other words, there was a 98% pass rate in the Follow-up Study 1. This is 14.9 percentage points over the baseline.

Table 28: Pass rate of Foundation Phase MTs on the first additional language test

Testing Phase	Percentage of teachers not passing	Percentage of teachers passing
Baseline	17.1	82.9
Follow-up 1	2.1	97.8
% point diff	-14.9	+14.9

Table 29 disaggregates the pass rate per province.

Table 29: Pass rate of Foundation Phase MTs on the first additional language test as disaggregated by province

Province	Testing Phase	Percent
KZN	Baseline	66.7
	Follow-up 1	96.0
	% point diff	+29.3
LP	Baseline	81.1
	Follow-up 1	100.0
	% point diff	+18.9
NC	Baseline	82.6
	Follow-up 1	100.0
	% point diff	+17.4

Table 29 also shows that all provinces obtained fairly large improvements in their pass rates. Only 1 MT in KwaZulu-Natal did not achieve the pass mark of 60%. She scored 58% on the test.

The high pass rates and high mean scores achieved by MTs on this test again shows that both the MTs and subcontractors are working hard and should be commended for surpassing the targets in the provinces.

6.2.1.3 Performance and pass rates per first additional language skill

The first additional language content test was made up of six questions. Each of these questions is listed in table 30 below with corresponding scores achieved by the 46 Foundation Phase MTs on the Follow-up test.

Table 30: Description of language knowledge / skills being assessed on the first additional language test (ordered from best to worst) in the Follow-up Study 1

Skill No.	Language skill	Overall Performance Rate	Provincial Performance Rate		
			KZN	LP	NC
1	Alphabetical order (Referencing skills; alphabetical order)	94.93	96.00	100.00	89.74
4	Language structure and use: (Language structure and use)	82.81	84.36	79.55	81.82
6	Genre: (Compares different kinds of text; identifies features of texts)	78.99	85.33	66.67	74.36
3	Comprehension: (Reading with understanding; answering questions; figures of speech)	78.90	74.82	83.82	83.71
2	Punctuation: (Punctuation; complex sentences; direct and indirect speech)	68.75	77.00	65.63	54.81
5	Graphic interpretation and writing (Reading for information - reads diagrams; transfers information from one mode to another; writes a series of instructions)	61.05	60.00	58.33	64.74

Unfortunately, no itemized data was available for the baseline of first additional language content test. Nevertheless, based on the Follow-up Study 1 results, it is clear that most MTs are fairly competent in alphabetical ordering; thinking and reasoning; and study skills (skill 1). In comparison to other provinces, Northern Cape MTs struggled the most on this skill while all MTs in Limpopo correctly answered items assessing this skill.

In terms of weakness, similar areas that were identified in the baseline were picked up in the Follow-up Study 1. Many teachers across all 3 provinces seem to be struggling with skill 2, which assesses conventions of punctuation including full stops, speech marks, and capitalization; knowledge of complex sentences; and reading to infer meaning. For this skill, MTs were required to make meaning from text, identify sentences and punctuate text.

The skill where most MTs across all the provinces struggled the most was in skill 5 which assessed graphic interpretation and writing. The overall performance rate of 61% suggests that they lack sufficient skills in reading and interpreting a simple map, following instructions, answering true\false questions, and writing a series of sequential instructions. Interestingly, these are the type of items which learners themselves have difficulty answering correctly on the JET learner tests.

6.2.2 NUMERACY

6.2.2.1 Description of the sample

Overall 63 Foundation Phase MTs completed the numeracy test. Table 31 breaks this down by province.

Table 31: Description of sample of Foundation Phase MTs who completed the numeracy test per province

Province	Baseline		Follow-up 1	
	Frequency	Percent	Frequency	Percent
EC	22	15.5	0	0.0
KZ	47	33.1	43	68.25
LP	50	35.2	9	14.29
NC	23	16.2	9	14.29
TOTAL	**142**	**100.0**	**63**	**100.0**

Only Foundation Phase MTs wrote the numeracy test and all respondents were female.

6.2.2.2 Overall performance and pass rates

As with the first additional language content test, the numeracy test relates to Result 1. The baseline result for Foundation Phase teachers on the numeracy test showed a performance rate of 25% across the four provinces (see table 32). The Follow-up Study 1 showed a performance rate of 40%. This is an impressive **56.9% increase over the baseline**. The expected target for year 2 on this result was an improvement of 5% over the baseline. This meant that the expected performance rate was supposed to increase by 1.25 percentage points. The Follow-up 1 result of **40%** means that MTs have **surpassed this target of 5% by 13.2 percentage points more than what was required.**

Table 32: Overall performance rate of Foundation Phase MTs on the numeracy test

	Number of MTs tested	Minimum % Score	Maximum % Score	Mean	Std. Deviation
Baseline	142	5	53	25.31	10.992
Follow-up 1	63	14	73	39.71	14.065
% point diff				+14.4	

Also noteworthy is the fact that the maximum score went up from 53% to 73%.

Table 33 breaks down the performance rates for respective provinces.

Table 33: Performance rate of Foundation MTs on the numeracy test disaggregated by province

Province	Testing Phase	Mean	N	Std. Deviation
KZ	Baseline	20.09	47	8.784
	Follow-up 1	36.65	43	11.739
	% point diff	+16.56		
LP	Baseline	24.36	50	10.198
	Follow-up 1	33.56	9	8.604
	% point diff	+9.2		
NC	Baseline	33.17	23	10.413
	Follow-up 1	56.73	11	13.986
	% point diff	+23.56		

All provinces experienced an improvement in their performance rates since the baseline. The biggest jump (24%) was made by Foundation Phase MTs in the Northern Cape. This makes Northern Cape the strongest province in terms of numeracy with a performance rate of 57%. The same was evident in the baseline. The other two provinces, KwaZulu-Natal and Limpopo, also showed improvement but Limpopo showed the least of all three provinces. Nevertheless, all provinces surpassed their target of 5% over the baseline: there was an 82% improvement over the baseline in KwaZulu-Natal, Limpopo saw an improvement of 38% over the baseline whilst Northern Cape experienced an increase of 71% over the baseline.

In terms of pass rate, of the 63 MTs who completed the numeracy test in the Follow-up Study 1, 22% attained a score of 50% or more (see table 34). This is almost 21% more than in the baseline where only 1.4% of MTs achieved a pass mark of 50%.

Table 34: Pass rate of Foundation Phase MTs on the numeracy test

Testing Phase	Percentage of teachers not passing	Percentage of teachers passing
Baseline	98.6	1.4
Follow-up 1	77.8	22.2
% point diff	-20.8	+20.8

Table 35, which disaggregates the pass rate per province, illustrates that 59% more Northern Cape MTs were able to pass the numeracy test. In KwaZulu-Natal, which had none of its MTs scoring passing marks in the baseline, improved its pass rate by 14%. Limpopo's pass rate was the lowest in comparison to the other provinces but the 9% improvement in pass rate is a positive finding.

Table 35: Pass rate of Foundation Phase MTs on the numeracy test as disaggregated by province

Province	Testing Phase	Percent
KZN	Baseline	0
	Follow-up 1	14
	% point diff	+14
LP	Baseline	2
	Follow-up 1	11.1
	% point diff	+9.1
NC	Baseline	4.3
	Follow-up 1	63.6
	% point diff	+59.3

The subcontractor for this learning area in these provinces, along with the MTs in each of these provinces should be commended for surpassing their target and for achieving improved mean scores and pass rates.

6.2.2.3 Performance and pass rates per Learning Outcome

The instrument for assessing educator content knowledge in numeracy for the Foundation Phase is based on the knowledge, skills and values described in the Revised National Curriculum Statement Grade R – 9 (Schools) (DoE, 2002) as follows:

- LO1 – Numbers, operations and relationships
- LO2 – Patterns, functions and algebra
- LO3 – Space and shape
- LO4 – Measurement
- LO5 – Data handling

The items on the test were further divided into routine (or level 1) and non-routine (or level 2) questions:

- **Routine Questions** are questions that one would expect (based on the Assessment Standards of the NCS) a strong Foundation Phase teacher to be able to answer correctly.
- **Non-routine Questions** are questions that one would expect a strong Intermediate Phase teacher to be able to answer correctly.

The following table categorizes each of the test items according to respective LOs and levels.

Table 36: Numeracy items categorised by LOs and levels

FOUNDATION PHASE INSTRUMENT	Level 1	Level 2
Learning Outcome 1 Numbers, Operations and Relationships	1, 2, 4a, 4b total = 8	16a, 16b, 16c, 17, 18a, 18b, 19, 20a, 20b, 21, 22, 23, 24, 25 total = 28
Learning Outcome 2 Patterns, Functions and Algebra	3 total = 2	26a, 26b, 27a, 27b total =8
Learning Outcome 3 Space and Shape (Geometry)	5a, 5b, 5c, 6, 7, 8a, 8b, 9 total = 16	31a, 31b, 31c, 32 total = 8
Learning Outcome 4 Measurement	10a, 10b, 11a, 11b, 13a, 13b, 13c, 13d total = 16	12, 28, 29 total = 6
Learning Outcome 5 Data Handling	14, 15 total = 4	30a, 30b total = 4
	Total = 46	Total = 54

By analysing the results of the MTs who participated in the follow up testing according to these categories, it will be possible to identify areas of strength and weakness both in the individual participants and in the whole cohort.

Tables 37 and 38 disaggregate the results achieved by Foundation Phase MTs across each of the numeracy LOs in the baseline and compares this to the results achieved in the Follow-up Study 1 for routine and non-routine questions respectively.

Table 37: Descriptive statistics of Foundation Phase MTs on the routine questions on the numeracy test as disaggregated by Learning Outcome

	Testing Phase	Minimum	Maximum	Mean	Std Deviation
LO1	Baseline	0.00	100.00	40.45	26.08
	Follow-up 1	0.00	100.00	57.34	28.54
	% point difference			+16.89	
LO2	Baseline	0.00	100.00	19.64	39.59
	Follow-up 1	0.00	100.00	20.63	40.79
	% point difference			+0.99	
LO3	Baseline	0.00	63.00	17.55	16.89
	Follow-up 1	12.50	100.00	40.38	17.81
	% point difference			+22.83	
LO4	Baseline	0.00	63.00	23.35	17.23
	Follow-up 1	0.00	62.50	29.07	21.24
	% point difference			+5.72	
LO5	Baseline	0.00	100.00	14.58	22.70
	Follow-up 1	0.00	100.00	60.32	33.79
	% point difference			+45.74	

Table 38: Descriptive statistics of Foundation Phase MTs on the non-routine questions on the numeracy test as disaggregated by Learning Outcome

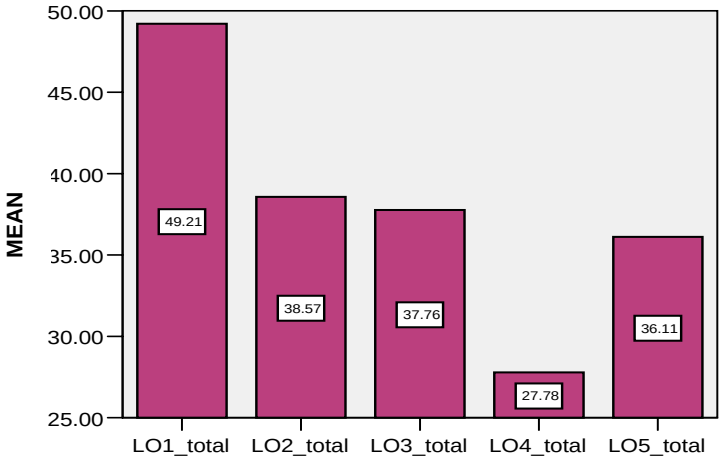
	Testing Phase	Minimum	Maximum	Mean	Std Deviation
LO1	Baseline	4.0	71.0	33.3	14.2
	Follow-up 1	14.3	92.9	46.9	18.1
	% point difference			+13.6	
LO2	Baseline	0.0	100.0	27.7	25.3
	Follow-up 1	0.0	100.0	43.1	23.4
	% point difference			+15.3	
LO3	Baseline	0.0	50.0	3.6	19.4
	Follow-up 1	0.0	100.0	32.5	25.0
	% point difference			+29.0	
LO4	Baseline	0.0	67.0	12.8	22.7
	Follow-up 1	0.0	66.7	24.3	24.8
	% point difference			+11.5	
LO5	Baseline	0.0	25.0	0.3	2.7
	Follow-up 1	0.0	100.0	11.9	28.3
	% point difference			+11.6	

As shown in table 37, improvements have been obtained by MTs on routine questions across all five LOs since the baseline. The most notable improvements were experienced in LO5, LO3 and LO1 where there were percentage point increases of 45.7, 22.8 and 16.8, respectively. This is equivalent to an impressive 314%, 130% and a 42% improvement over the baseline, respectively. In LO2 and LO4, improvements were also observed but not to the same extent as the previous three LOs: LO2 achieved a 5% improvement over the baseline (or 1% percentage points more) while LO4 gained 5.7 percentage points (i.e., 24% improvement over the baseline).

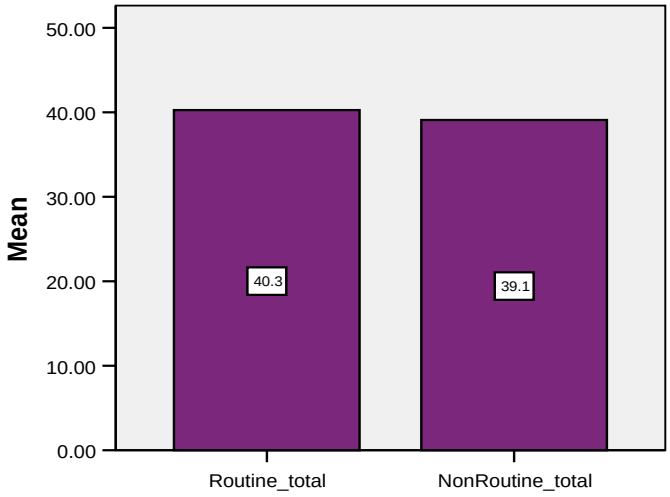
Impressive improvement rates were obtained for non-routine questions across all LOs as well (see table 38). The highest mean was achieved by non-routine LO1 items both in the baseline and in the Follow-up Study 1. However, attention is drawn to LO5 and LO3 where an outstanding 3868% for LO5 and an 809% improvement over the baseline in LO3 was revealed. Despite the incredible increase over the baseline with non-routine LO5 items, it should still be noted that MTs continue to have the greatest difficulty on these items as the overall mean score on this LO was the lowest of all the LOs (i.e., it was just below 12%).

At global level for each LO (i.e., when routine and non-routine questions are combined for each LO), Foundation Phase MTs performed the best on LO1 items (or items that deal with numbers, operations and relationships) and the worst on LO4 items (items which assess measurement) (see graph 1).

Graph 1: Mean scores across LOs (includes routine and non-routine questions) in the numeracy test in the Follow-up Study 1.



Graph 2: Overall mean scores for routine and non-routine questions in the numeracy test in the Follow-up Study 1.



The Follow-up Study 1 reveals that MTs are performing at more or less the same levels for both routine and non-routine questions (see graph 2).

It is recommended that subcontractors continue with their existing strategy of addressing weaknesses in the more basic LOs (LO1 and LO2) and then moving on to the more demanding skills such as in LO3, LO4 and LO5 as this strategy seems to be having a positive impact.

6.2.3 MATHEMATICS – INTERMEDIATE PHASE

6.2.3.1 Description of the sample

Overall 67 MTs completed the mathematics test in the Follow-up Study 1. Intermediate and some Senior Phase mathematics teachers were given the

mathematics Intermediate Phase test. Tables 39 and 40 break this down by province and gender respectively.

Table 39: Description of sample of MTs who completed the Intermediate Phase mathematics test per province in the Follow-up Study 1

Province	Baseline		Follow-up 1	
	Frequency	Percent	Frequency	Percent
EC	48	25.7	0	0
KZ	41	21.9	37	55.2
LP	72	38.5	14	20.9
NC	26	13.9	16	23.9
TOTAL	**187**	**100.0**	**67**	**100.0**

Table 40: Description of sample of MTs who completed the Intermediate Phase mathematics test per gender in the Follow-up Study 1

Gender	Frequency	Percent
Female	33	49.3
Male	34	50.7
TOTAL	**67**	**100.0**

6.2.3.2 Overall performance and pass rates

As with the first additional language and numeracy tests, the mathematics test relates to IEP's Result 1. The baseline result for MTs on the mathematics test shows a performance rate of 26% across the four provinces (see table 41). The Follow-up Study 1 shows a 6.5 percentage point increase from the baseline (6.5%). The **target for year 2 on this test is also 5%**. The fact that MTs achieved a performance rate of 32.5% means that MTs **improved by 24.9% over the baseline**. In other words, they have surpassed the 5% target by 19.9% or by 5.2 percentage points.

Table 41: Overall performance rate of MTs on the Intermediate Phase mathematics test

	Number of MTs tested	Minimum	Maximum	Mean	Std. Deviation
Baseline	187	1	68	26.03	13.171
Follow-up	67	10	73	32.53	14.740
% point diff				+6.5	

It is also important to note that the minimum score is 9 percentage points more than in the baseline and the maximum score increased by 5 percentage points.

Table 42 breaks down the performance rates for respective provinces.

Table 42: Performance rate of MTs on the Intermediate Phase mathematics test disaggregated by province

Province	Testing Phase	Mean	N	Std. Deviation
KZ	Baseline	19.12	41	9.675
	Follow-up 1	23.33	37	8.346
	% point diff	+4.21		

LP	Baseline	24.42	72	10.376
	Follow-up 1	40.07	14	10.896
	% point diff	+15.65		
NC	Baseline	42.58	26	14.943
	Follow-up 1	47.22	16	13.932
	% point diff	+4.64		

Provincially, the biggest improvement was observed by Limpopo which increased its mean score (performance rate) by almost 16 percentage points to achieve an overall score of 40%. In terms of percentage over the baseline, this 16% gain is reflective of a dramatic 64% improvement over the baseline. The other two provinces, KwaZulu-Natal and Northern Cape, also experienced improvements but the gains are less than those shown by Limpopo. Thus, in KwaZulu-Natal a percentage point gain score of 4.2% was observed. This is a 22% improvement over the baseline. Northern Cape improved by 10.8% over the baseline or 4.6 percentage points but was the province with the highest mean score.

In terms of pass rate, of the 67 MTs who wrote the mathematics test, only 9 (or 13.4%) attained a score of 50% or more (see table 43).

Table 43: Pass rate of MTs on the mathematics test

Testing Phase	Percentage of teachers not passing	Percentage of teachers passing
Baseline	94.7	5.3
Follow-up 1	86.6	13.4
% point diff	-8.1	+8.1

Although the number of teachers passing (n=9) seems like a fairly small number, it should be borne in mind that the baseline numbers were so low and that the increase of 8% in the total number of MTs who passed the test in the Follow-up Study 1 is an improvement rate of 153% over the baseline.

Table 44 disaggregates the pass rate per province and gender.

Table 44: Pass rate of MTs on the mathematics test as disaggregated by province

Province	Testing Phase	Percent
KZN	Baseline	0
	Follow-up 1	0
	% point diff	-
LP	Baseline	2.8
	Follow-up 1	14.2
	% point diff	+11.5
NC	Baseline	23.1
	Follow-up 1	43.8
	% point diff	+20.7

Although KwaZulu-Natal made great strides in improving its overall performance rate by showing a gain percentage point of 4.2%, none of the MTs achieved the 50%

benchmark on this test. In other words, there is an indication that MTs in this province are slowly improving their content knowledge on Intermediate Phase mathematics but many are still below expectations in terms of what constitutes a passing mark.

Northern Cape MTs had the lowest improvement percentage over the baseline (10.8%) but the pass rate for Northern Cape province was the highest in comparison to the other two provinces which is why this province is continuing to be the strongest performing province with the highest mean scores for mathematics at the Intermediate Phase level.

6.2.3.3 Performance and pass rates per Learning Outcome

As with the numeracy test, the Intermediate Phase mathematics tests assessed Intermediate Phase MTs on the five Learning Outcomes as stipulated in the NCS (see section 7.1.2.3). The items on the test were further divided into Routine and Non-routine questions.

- **Routine Questions** are questions that one would expect (based on the Assessment Standards of the NCS) a strong Intermediate Phase teacher to be able to answer correctly.
- **Non-routine Questions** are questions that one would expect (based on the Assessment Standards of the NCS) a strong Senior Phase teacher to be able to answer correctly.

Table 45 categorizes each of the test items according to respective LOs and levels.

Table 45: Numeracy items categorised by LOs and levels

INTERMEDIATE PHASE INSTRUMENT	Level 1	Level 2
Learning Outcome 1 Numbers, Operations and Relationships	1, 2a, 2b, 2c, 3, 4, 5, 6, 7, 8a, 8b, 9 total = 24	28, 29, 31, 32a, 32b total = 10
Learning Outcome 2 Patterns, Functions and Algebra	10a, 10b, 11a, 11b, 12, 13a, 13b, 14a, 14b, 14c total = 20	33a, 33b, 35a, 35b, 35c total = 10
Learning Outcome 3 Space and Shape (Geometry)	15a, 15b, 15c, 16a, 16b, 16c, 17, 18a, 18b, 20, 22 total = 22	34, 36a, 36b, 36c, 39a, 39b total = 12
Learning Outcome 4 Measurement	19, 21, 23, 24, 25a, 25b total = 12	37, 41a, 41b total = 6
Learning Outcome 5 Data Handling	26, 27, 30a, 30b total = 8	38, 40 total = 4
	Total = 86	Total = 42

Tables 46 and 47 disaggregate the results achieved by Intermediate Phase MTs across each of the mathematics LOs per question type.

Table 46: Descriptive statistics of Intermediate Phase MTs on the routine questions on the mathematics test as disaggregated by Learning Outcome

	Testing Phase	Minimum	Maximum	Mean	Std Deviation
LO1	Baseline	0.00	100.00	51.80	21.97
	Follow-up 1	8.33	91.67	49.56	19.79
	% point difference			-2.24	
LO2	Baseline	0.00	85.00	27.45	23.17
	Follow-up 1	15.00	100.00	52.99	21.37
	% point difference			+25.54	
LO3	Baseline	0.00	91.00	28.06	19.85
	Follow-up 1	9.09	90.91	43.76	20.78
	% point difference			+15.70	
LO4	Baseline	0.00	63.00	13.06	16.89
	Follow-up 1	0.00	50.00	14.30	16.53
	% point difference			+1.24	
LO5	Baseline	0.00	100.00	13.46	21.89
	Follow-up 1	0.00	75.00	16.23	22.93
	% point difference			+2.77	

Intermediate Phase MTs improved across all the LOs on routine questions, except in LO1 (see table 46). The biggest improvement was in LO2 where the resulting mean in the Follow-up Study 1 was 25.5 percentage points more than the baseline. This is a 93% improvement over the baseline. The second highest gain was in LO3 where the mean was 15.7 percentage points more than the baseline. LO4 and LO5 also showed improvements: 10% and 21% over the baseline respectively. The only disappointment was in LO1 which dropped 2.2 percentage points since the baseline.

Table 47: Descriptive statistics of Intermediate Phase MTs on the non-routine questions on the mathematics test as disaggregated by Learning Outcome

	Testing Phase	Minimum	Maximum	Mean	Std Deviation
LO1	Baseline	0.00	60.00	14.58	17.12
	Follow-up 1	0.00	100.00	18.96	24.07
	% point difference			+4.38	
LO2	Baseline	0.00	80.00	3.21	11.67
	Follow-up 1	0.00	80.00	14.93	22.99
	% point difference			+11.72	
LO3	Baseline	0.00	67.00	6.55	14.98
	Follow-up 1	0.00	83.33	21.27	26.88
	% point difference			+14.72	
LO4	Baseline	0.00	67.00	5.46	13.08
	Follow-up 1	0.00	50.00	5.22	13.36
	% point difference			-0.24	
LO5	Baseline	0.00	0.00	0.00	0.00
	Follow-up 1	0.00	50.00	6.34	15.29
	% point difference			+6.34	

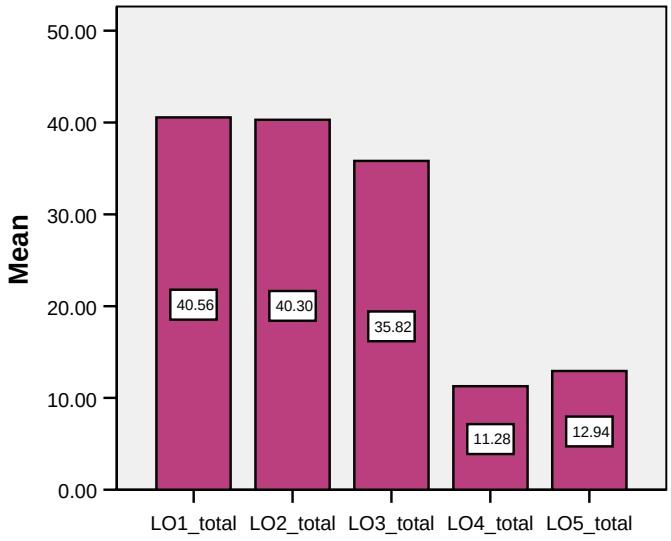
In terms of non-routine questions, with the exception of LO4, improvements were noted across all LOs in the Follow-up Study 1 (see table 47). LO3 and LO2 showed the biggest gain since the baseline (14.7 and 11.7 percentage points respectively). In relation to the improvement over the baseline, these gains in percentage points are equivalent to a 225% and 365% improvement over the baseline. Also noteworthy

is the fact that some progress has been made with respect to LO5 non-routine questions: in the baseline all the MTs could not answer any of the items while in the Follow-up Study 1, a mean of 6% was achieved. Although this is still a very low mean, the fact that there has been a 6 percentage point increase deserves mentioning. LO4 was the only learning outcome were a decline was experienced, but this was only 0.2 percentage points lower.

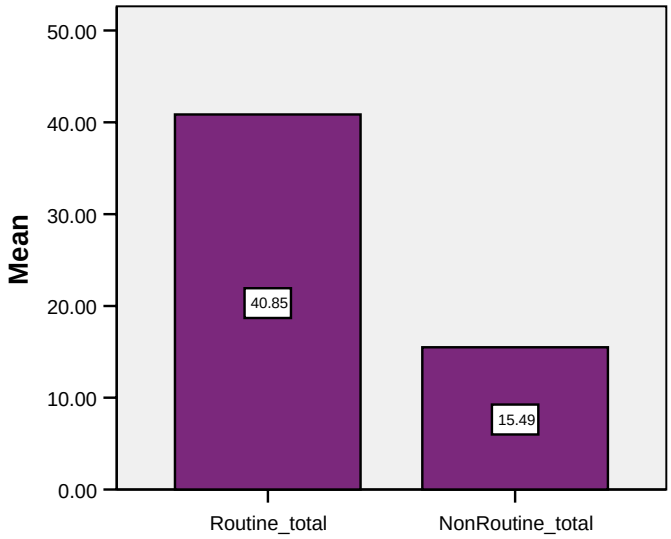
When the performance across LOs are compared (see Graph 3), LO1 (numbers, operations and relationships) and LO2 (patterns, functions and algebra) are the strongest skills for Intermediate Phase MTs across routine and non-routine type questions. Intermediate MTs appear to have the greatest challenge with items that assess data handling (LO5) across both routine and non-routine questions and measurement (LO4). This is more clearly shown in Graph 3 below.

Additionally, non-routine questions are more challenging for Intermediate Phase MTs to master than routine questions (see Graph 4).

Graph 3: Mean scores across LOs (includes routine and non-routine questions) in the mathematics test in the Follow-up Study 1.



Graph 4: Overall mean scores for routine and non-routine questions in the numeracy test in the Follow-up Study 1.



It is recommended that subcontractors continue with their existing strategy of addressing weaknesses, although more attention would need to be given to LO4 and LO5.

6.2.4 MATHEMATICS – FET PHASE

6.2.4.1 Description of the sample

FET teachers from First Time High schools in the Northern Cape province were tested on a separate mathematics test which was pitched at the FET level. Overall, 7 MTs wrote this test in the Follow-up Study 1.

6.2.4.2 Overall performance and pass rates

As with the first additional language, the numeracy and the Intermediate Phase mathematics test, the FET Phase mathematics test relates to IEP's Result 1. The baseline result for MTs on the FET mathematics test showed a performance rate of 59% (see table 48).

Table 48: Overall performance rate of MTs on the FET mathematics test

	Number of MTs tested	Minimum	Maximum	Mean	Std. Deviation
Baseline	26	29	98	58.73	19.723
Follow-up	7	32	74	60.29	15.294
% point diff				+1.56	

The mean score of FET teachers is again much higher than that of the Foundation and Intermediate Phase MTs. The mean percentage score was 60% in the Follow-up Study 1, which is 1.6 percentage points more than the baseline. It is likely that the higher mean scores at the FET band is attributed to teachers being more qualified to teach mathematics than those at the GET band (or primary school level).

While IEP did not set the same 5% target for FET MTs as it did for FP and IP MTs, it could be noted that a 5% improvement over baseline was not reached in year 2 but FET MTs are making good effort. **An improvement of 2.7% over the baseline was**

achieved, which is equivalent to 1.5 percentage points less than what was expected.

In terms of pass rate, of the 7 teachers who wrote the FET mathematics test, all MTs except 1 attained a score of 50% or more (see table 49).

Table 49: Pass rate of MTs on the mathematics test

Testing Phase	Percentage of teachers not passing	Percentage of teachers passing
Baseline	34.6	65.4
Follow-up 1	14.3	85.7
% point diff	-20.3	+20.3

This means that most MTs who were assessed on the FET mathematics test are able to meet the agreed 50% pass/no pass benchmark required by a MT to pass the baseline in FET mathematics.

6.2.4.3 Performance and pass rates per Learning Outcome

No information on knowledge/skills was available for the FET mathematics test when this report was compiled.

6.2.5 SCIENCE & TECHNOLOGY – INTERMEDIATE PHASE

Similar to the mathematics testing, separate science tests were developed for science teachers at the Intermediate Phase and the FET Phase. This section looks at the Intermediate Phase test results.

6.2.5.1 Description of the sample

Overall 66 Intermediate Phase MTs completed the science & technology test. Tables 50 and 51 break this down by province and gender.

Table 50: Description of sample of Intermediate Phase MTs who completed the Intermediate Phase science & technology test per province in the Follow-up Study 1

Province	Baseline		Follow-up 1	
	Frequency	Percent	Frequency	Percent
EC	54	24.3	0	0.0
KZ	46	20.7	44	66.7
LP	93	41.9	9	13.6
NC	29	13.1	13	19.7
TOTAL	**222**	**100.0**	**66**	**100.0**

Table 51: Description of sample of Intermediate Phase MTs who completed the Intermediate Phase science & technology test per gender in the Follow-up Study 1

Phase	Frequency	Percent
Female	36	54.5
Male	30	45.5
TOTAL	**66**	**100**

6.2.5.2 Overall performance and pass rates

As with the other content tests, the Intermediate Phase science and technology test relates to Result 1. The baseline result for MTs on the Intermediate Phase science and technology test show a performance rate of 68.7% across the three provinces (see table 52).

Table 52: Overall performance rate of MTs on the Intermediate Phase science & technology test

	Number of MTs tested	Minimum	Maximum	Mean	Std. Deviation
Baseline	222	21	94	54.57	14.203
Follow-up	66	47	89	68.74	9.334
% point diff				+14.17	

As per the **targets set for year 2, educators were expected to improve by 5%**. Table 52 shows that the overall results improved by 14.2 percentage points. This is a **25.97% improvement over the baseline**. This means that the target of 5% has been surpassed by 20.97% or 11.4 percentage points.

Table 53: Performance rate of MTs on the Intermediate Phase science & technology test disaggregated by province

Province	Testing Phase	Mean	N	Std. Deviation
KZ	Baseline	56.8	46	13.593
	Follow-up 1	70.8	44	7.917
	% point diff	+14.0		
LP	Baseline	50.1	93	14.291
	Follow-up 1	58.9	9	8.799
	% point diff	+8.8		
NC	Baseline	60.3	29	11.698
	Follow-up 1	68.6	13	10.35
	% point diff	+8.3		

Provincially, KwaZulu-Natal performed the best with an overall performance rate of 71% while Limpopo scored the worst with an overall performance rate of 59% being achieved.

In terms of percentage over the baseline, the most notable and positive change was in KwaZulu-Natal which obtained a 24.6% improvement over the baseline. This is well over the targeted 5% improvement. The resulting performance rate (or mean score) for this province was almost 71%.

Similarly for Limpopo and Northern Cape, both of which surpassed the target of 5%: Limpopo improved by 17% over the baseline and Northern Cape by 14%.

These improvements are admirable and both the MTs and the subcontractor for science should be commended for surpassing the targets in the provinces.

Table 54 breaks down the performance rates for males and females.

Table 54: Performance rate of MTs on the Intermediate Phase science & technology test disaggregated by gender

Gender	N	Mean	Std. Deviation
Female	36	68.41	10.118
Male	30	69.14	8.452

Male MTs seem to be doing slightly better than the female MTs in relation to the science and technology test, but not by much.

In terms of pass rate, of the 46 teachers who wrote the Intermediate Phase science & technology test, 97% attained a score of 50% or more. This is 34.8% more teachers than in the baseline (see table 55).

Table 55: Pass rate of MTs on the Intermediate Phase science & technology test

Testing Phase	Percentage of teachers not passing	Percentage of teachers passing
Baseline	37.8	62.2
Follow-up 1	3.0	97.0
% point diff	-34.8	+34.8

Provincially, all the MTs who wrote the IP science and technology test in KwaZulu-Natal and Northern Cape passed with scores of 50% or more. This is a respective 35% and a 17% increase in the total number of teachers who passed since the baseline. Limpopo was the only province where 22% of its MTs did not pass. However, this is 27% more teachers who passed when compared to the baseline numbers.

Table 56: Pass rate of MTs on the Intermediate Phase science & technology test as disaggregated by province

Province	Testing Phase	Percent
KZN	Baseline	65.2
	Follow-up 1	100
	% point diff	+34.8
LP	Baseline	50.5
	Follow-up 1	77.8
	% point diff	+27.3
NC	Baseline	82.8
	Follow-up 1	100
	% point diff	+17.2

6.2.5.3 Performance and pass rates per Item

The Intermediate Phase science & technology test was made up of seven items as follows:

- **ITEM 1: (Section 1, Questions 1 to 15)**

These are multiple-choice questions to assess the educator's basic knowledge in natural science. The baseline reported that 39% of MTs who were assessed on the science & technology test failed to pass this item (i.e., they obtained a score of less

than 50%), while 62% of the candidates achieved a pass mark of 50% or more. The Follow-up Study 1 shows that great improvement has been made: only 9% of MTs failed. In other words, 91% of MTs passed obtaining scores of 50% or more.

This is more clearly illustrated in table 57, which provides the distribution of scores for ITEM 1.

Table 57: Distribution of scores for the Item 1 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent of MT**	**Distribution of Scores**	**Percent of MT**
6.67	5.1	26.67	1.5
20.00	2.6	46.67	7.6
33.33	7.7	*53.33*	*6.1*
40.00	10.3	*60.00*	*12.1*
46.67	12.8	*66.67*	*19.7*
53.33	*10.3*	*73.33*	*18.2*
60.00	*15.4*	*80.00*	*13.6*
66.67	*23.1*	*86.67*	*6.1*
73.33	*12.8*	*93.33*	*15.2*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

Table 57 also shows that the lowest percentage score in the baseline was 6.7% and the maximum score was 73.3% while in the Follow-up Study 1 the lowest score was 26.7% and the highest score obtained was 93.3%.

The themes on which the questions were based were focussed on the following three areas: (i) Planet Earth and Beyond, (ii) Energy and Change and (iii) Life and Living. The following tables breaks down the scores for each of these themes.

Table 58: Distribution of scores on theme - Planet Earth and Beyond

Distribution	Frequency	Percent
.00	9	13.6
25.00	17	25.8
50.00	21	31.8
75.00	15	22.7
100.00	4	6.1
Total	**66**	**100.0**

Table 59: Distribution of scores on theme - Energy and Change

Distribution	Frequency	Percent
60.00	8	12.1
80.00	23	34.8
100.00	35	53.0
Total	**66**	**100.0**

Table 60: Distribution of scores on theme - Life and Living

Distribution	Frequency	Percent
16.67	2	3.0
33.33	4	6.1
50.00	7	10.6
66.67	19	28.8
83.33	17	25.8
100.00	17	25.8
Total	**66**	**100.0**

Tables 58, 59 and 60 clearly show that MTs struggle the most with the theme of Planet Earth and Beyond. Only 61% of MTs managed to correctly answer items which assessed this theme. The Grade 6 learners who were tested in a sample of IEP schools also showed great difficulty with items relating to this theme.

All the MTs were able to obtain passing scores on the theme of Energy and Change. Again, this was one of the areas where Grade 6 learners struggled the least. The last theme of Life and Living also is an area where most MTs were able to pass.

- **ITEM 2: (Section 1, Question 16)**

In this item, participants are requested to match (pair) the correct facts with one another and establish scientific relationships among the facts. The distribution of scores (in table 61) shows that 81% of MTs in the baseline passed this section. In the Follow-up Study 1, again improvements are noted, where 94% of MTs passed and only 6% failed.

Table 61: Distribution of scores for the Item 2 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent**	**Distribution of Scores**	**Percent**
.00	2.7		
16.67	2.7		
33.33	2.7	25.00	1.5
41.67	10.8	41.67	4.5
50.00	*10.8*	*50.00*	*7.6*
58.33	*18.9*	*58.33*	*7.6*
66.67	*21.6*	*66.67*	*15.2*
75.00	*16.2*	*75.00*	*19.7*
83.33	*10.8*	*83.33*	*40.9*
91.67	*2.7*	*91.67*	*3.0*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

Also noteworthy is the fact that the lowest score achieved on the test was 25% as opposed to the 0% in the baseline.

- **ITEM 3: (Section 1, Question 17)**

These questions assess the ability of the participants to apply their knowledge in a broader context (sometimes outside the classroom situation). The theme of this item was “Matter and Materials”. In the baseline, 63% of participants passed. The Follow-

up Study 1, on the other hand, reveals that almost all MTs (97%) passed this part of the test. Only 2 MTs (or 3%) failed. Additionally, 30 MTs achieved 100% on this item in the Follow-up Study 1 as opposed to the three in the baseline.

Table 62: Distribution of scores for the Item 3 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent**	**Distribution of Scores**	**Percent**
12.50	5.3		
25.00	18.4		
37.50	13.2	37.50	3.0
50.00	*13.2*	*50.00*	*4.5*
62.50	*21.1*	*62.50*	*9.1*
75.00	*10.5*	*75.00*	*15.2*
87.50	*10.5*	*87.50*	*22.7*
100.00	*7.9*	*100.00*	*45.5*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

- **ITEM 4: (Section 2 – Technology; Question 1 – Structures)**

The question was set to assess the ability of the MTs to apply their knowledge of structures on a paper model of a swing. The theme of this question was on "Structures". In the baseline only one MT passed while 97% failed. In fact, most (76%) scored zero on this item in the baseline. The Follow-up Study 1 revealed a more positive picture: 35% of MTs passed this item of which two MTs (3%) scored 100%. There is still a large number of MTs who did not pass (65%), but this is better than the 97% in the baseline.

Again this shows that the MTs knowledge on structures is poor, in some cases non-existent, but there has been a move towards improving knowledge in this area since the baseline.

Table 63: Distribution of scores for the Item 4 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent**	**Distribution of Scores**	**Percent**
.00	75.7	.00	13.6
16.67	10.8	16.67	31.8
33.33	10.8	33.33	19.7
50.00	*2.7*	*50.00*	*19.7*
		66.67	*7.6*
		83.33	*4.5*
		100.00	*3.0*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

- **ITEM 5: (Section 2 – Technology; Question 2 – Processing)**

This question assesses the knowledge of the MT on processing and the application thereof. The Follow-up Study 1 shows that the number of MTs who passed this item

since the baseline has increased by 17.5%, from 55% in the baseline to 73% in the Follow-up. This indicates that MTs are beginning to come to grips with processing.

Table 64: Distribution of scores for the Item 5 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent**	**Distribution of Scores**	**Percent**
		.00	1.5
20.00	10.5	20.00	4.5
40.00	34.2	40.00	21.2
50.00	*2.6*	*60.00*	*21.2*
60.00	*26.3*	*80.00*	*34.8*
80.00	*26.3*	*100.00*	*16.7*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

- **ITEM 6: (Section 2 – Technology; Question 3 – Mechanical Systems)**

In this item the MTs' knowledge of concepts on mechanical systems was assessed using as an example a bicycle. The Follow-up Study 1 showed that a significant level of improvement in this area was experienced. The number of MTs who passed in the Follow-up Study 1 was 95.4%, of which 4 MTs obtained 100%. This is a staggering 81% increase since the baseline. This suggests that more MTs are becoming more familiar with the concepts being assessed.

Table 65: Distribution of scores for the Item 6 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent**	**Distribution of Scores**	**Percent**
.00	2.7		
14.29	13.5	14.29	1.5
21.43	2.7	42.86	3.0
28.57	32.4	*57.14*	*33.3*
42.86	35.1	*71.43*	*33.3*
57.14	*10.8*	*85.71*	*22.7*
71.43	*2.7*	*100.00*	*6.1*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

- **ITEM 7: (Section 2 – Technology; Question 4 – Electrical Systems)**

The MTs' knowledge on components of a circuit, the function of these components and energy conversion is assessed in Item 7. In comparison to the baseline, the Follow-up Study 1 reveals that MTs have gained significantly in their knowledge of electrical systems. While the baseline showed that 19% of MTs obtained pass marks, in the Follow-up Study 1 the number of MTs who passed increased to 88%, which is a 69% more than the baseline.

Table 66: Distribution of scores for the Item 7 on the Intermediate Phase science & technology test

Baseline		Follow-up 1	
Distribution of Scores	**Percent**	**Distribution of Scores**	**Percent**
.00	5.4	23.53	1.5
11.76	2.7	29.41	1.5
14.71	2.7	35.29	1.5
23.53	5.4	47.06	7.6
29.41	16.2	*52.94*	*7.6*
35.29	16.2	*58.82*	*7.6*
41.18	21.6	*64.71*	*6.1*
47.06	10.8	*70.59*	*22.7*
52.94	*13.5*	*76.47*	*22.7*
58.82	*2.7*	*82.35*	*16.7*
64.71	*2.7*	*88.24*	*1.5*
		94.12	*3.0*
Total	**100.0**	**Total**	**100.0**

NOTE: Numbers in italics are the passing teachers

The results on the Follow-up Study 1 suggest that the strategies which subcontractors put forward to address the weaknesses identified in the baseline have merit. The overall performance rates and pass rates are positive and contributed to the target of 5% being successfully met.

It is recommended that subcontractors continue with their existing strategy of addressing weaknesses, although more attention would need to be given to the following themes: Planet Earth and Beyond and Structures

6.2.6 SCIENCE & TECHNOLOGY – FET PHASE

6.2.6.1 Description of the sample

Nine FET MTs completed the science & technology test for the FET phase. The IEP FET programme is only being piloted in the Northern Cape. Table 67 breaks this down by gender.

Table 67: Description of sample of FET MTs who completed the science & technology test per gender in the Follow-up Study 1

Phase	Frequency	Percent
Female	1	11.1
Male	7	77.8
No data	1	11.1

6.2.6.2 Overall performance and pass rates

The Follow-up Study 1 result for MTs on this test shows a performance rate of 64%. Unfortunately, no data was available for the baseline and therefore comparisons will not be possible. Nevertheless, this section will present the overall performance and pass rates on the Follow-up Study 1.

Table 68: Overall performance rate of FET MTs on the science & technology test

Number of MTs tested	Minimum	Maximum	Mean	Std. Deviation
9	44	82	63.78	12.58747

In terms of pass rate, all FET MTs achieved the 50% pass mark (i.e., the pass rate was 100%).

No information on knowledge/skills was available for the FET science & technology test when this report was compiled.

7. SUMMARY AND CONCLUSION

This report has shown that considerable improvements have been made since the baseline and that in almost all instances, targets as set by RTI-IEP and approved by USAID have been met (and most often than not, surpassed) by MTs for Results 1 and 5. The only areas where the target was not met was in Result 2 and 4, and the mathematics FET learning area for Result 1 (see table 69).

Table 69: Target outcomes for Results 1, 2, 4 and 5

IEP Result	Instrument	Target for Year 2	Expected mean %	Actual mean %	Target outcome
Result 1	First Additional Language Foundation Phase	5% improvement over baseline	73.4%	75.6%	**Target met** (8% improvement over the baseline which is 2 percentage points more than expected)
	Numeracy Foundation Phase	5% improvement over baseline	26.6%	39.7%	**Target met** (57% improvement over the baseline which is 13 percentage points more than expected)
	Mathematics Intermediate Phase	5% improvement over baseline	27.3%	32.5%	**Target met** (25% improvement over the baseline which is 5 percentage points more than expected)

	Mathematics FET Phase	5% improvement over baseline	n/a	60.3%	**No target set** (2.6% improvement over the baseline)
	Science Intermediate Phase	5% improvement over baseline	57.3%	68.7%	**Target met** (26% improvement over the baseline which is 11 percentage points more than expected)
	Science FET Phase	5% improvement over baseline	n/a	63.7%	**No target set** (no comparative data)
Result 2	Educator Questionnaire	8% improvement over baseline	60.4%	56.7%	**Target not met** (-1.4% decline over the baseline which is 4 percentage points less than expected)
Result 4	Educator Questionnaire	20% improvement over the baseline	69.9%	52.9%	**Target not met** (-9% decline over the baseline which is 17.1 percentage points less than expected)
Result 5	Educator Questionnaire	8% improvement over baseline	66.0%	69.0%	**Target met** (13% improvement over the baseline which is 3 percentage points more than expected)

These results indicate that the IEP is having a positive impact on MTs' ability to develop and use classroom materials that support C2005 learner-centred instruction (Result 5) and on improving MTs content knowledge in FP literacy and numeracy, IP mathematics and science and technology, and on FET mathematics.

However, the overall results for Results 2 and 4, especially Result 4 are cause for concern, as the targets for these IEP Results were not met. This means that teachers need much more support from IEP to develop and apply continuous assessment strategies and techniques (i.e., Result 2), especially the numeracy and the science teachers. The biggest shortfall was shown in Result 4 which suggests that teachers are not teaching in a manner that in consistent with the NCS. This difficulty was experienced by MTs in all learning areas except literacy. It is therefore suggested that much more support be given to MTs in this area.

Despite this, it is clear that the IEP should all be commended for reaching and surpassing the majority of targets as set for year 2 with regard to teachers.